

Graduation Address
USN Post Graduate School
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Secretary Dinneen, Admiral Dedman, members of the graduating class, ladies and gentlemen. My warm congratulations to you who are graduating here today from a very demanding curriculum at this Post Graduate School. May I take a moment also to express my congratulations and my thanks to the wives or husbands and families of the graduating students. It has been rigorous for you the students, but I know there has been great sacrifice and great support for you from your families during this period.

You, the students though, were selected to come here because of your potential. Your potential not only to complete a rigorous academic curriculum, but for leadership in your branch of the service. In the process of completing your course successfully, you have proved that these two goals of high academic standards and good leadership are not incompatible. In fact, they are not only not incompatible in my view, but the one thing I would like to say to you today is that I believe that the naval profession needs men and women of strong intellectual capacity today as never before. And although I will express the rest of my remarks in terms of the United States Navy, I intend it to apply equally to the Army and the Air Force and to our representatives of foreign services here. I believe that the naval profession is as

intellectually demanding as any that you can find today. So you, who have had this particular intellectual opportunity here at Monterey, must be able to translate this educational experience into a wide range of problem solving for the United States Navy.

What are those problems? Well generically there are three types of problems that you will be facing. Problems of strategic decisions, problems of managerial decisions, and problems of operational tactics. In my view, the intellectual content of each of these types of naval activities is increasing constantly. On the tactical side that may surprise some people. Even we in the profession still conceive of military and naval tactics as primarily matters of bravery and command decisions. We do not think often of the increasing intellectual content of tactical decision making. And yet, let me look at just one example of where naval tactics are going and why we have to be smarter in order to carry them out.

The skipper of a major combatant ship today will find that his fighting capability is largely resident in his computer program. The program will literally limit the captain's options no matter how brave or how ingenious he may be. Moreover, there is a high probability that his program was built by some civilian who has never been to sea and if the captain does not understand the assumptions, the limitations that that civilian put into those programs, he may find that in the moment of battle what he wants to do simply cannot be accomplished.

For instance, during the Vietnam war we sent our guided missile cruisers to the Gulf of Tonkin. In their computer programs was the control of the carrier missile system for protecting a carrier task force against air attack, a carrier task force assumed to be in the open blue reaches of the ocean. Instead, we positioned those cruisers to hug the North Vietnamese coastline and attempt to control the air space over the coast. Few if any skippers recognized that their program was not built for that and that when the lights lit up and said free to fire, it was not so because the envelope for a carrier over land is markedly different than from one over seas. You must, today, be able intellectually to understand all the details and capabilities of the weapons systems and sensors if you are going to be a good tactician.

On the managerial side, here too it takes more than just good judgment and common sense to do the job that has to be done. How, for instance, do you compare the alternatives of whether a new naval ship should have one propeller or two. Common sense tells any ship driver that he would prefer two. Right? It is better for maneuvering, you have got redundancy, and you can go faster. How much are those characteristics worth in dollars? Why do you need to maneuver much at sea today when you have long-range weapons? What is the requirement for redundancy? Are you likely to have battle damage that will put out one screw and not damage enough else of the ship to disable it, so that if you did have two you could still continue in battle? Perhaps. And speed, it is always nicer to go faster. And even if you do not need speed to fight because you

have long-range weapons, maybe you need it to get where you ought to be in the nick of time. But what if you could have 12 one-shaft ships instead of 8 two-shaft ships for the same price? Isn't there a reasonable probability you might be in the right place in the first instance anyway?

These are difficult tradeoffs. More difficult is the intellectual process that you will be faced with in displaying the alternatives in situations like this, in ways that will be fair and clear so that you can assist decision makers in considering their options. And if, as you look carefully around the military environment, you ask the question does the staff work that is being done promote this kind of judgment of alternatives. I think you will find the general answer is no. The staff work that we usually see attempts to drive a decision maker into a particular decision rather than laying out issues and discussing options. One of the greatest farces that has been perpetrated on the US military is the concept of completed staff work. Completed staff work is really a way of eliminating the manager from the decision process by giving him only one choice to choose between.

Strategic decision making also has a much more stimulating content today. And you have to begin by asking why do we need a Navy at all. Well of course we all know that. Alfred Thayer Mahan told us we needed a Navy. He told us we needed a Navy to control the seas and he gave us a prescription for controlling the seas. It amounted to having the best battle fleet around and being able to destroy the enemy's battle

fleet in head-to-head engagement. In fact, of course, not very long after Mahan wrote, he was hopelessly outdated by the change of technology. First the advent of the submarine and then the aircraft. But despite this, all navies prepared for World War I in the image of Mahan. They built large battle fleets. And in that war there was a great head-to-head engagement, the battle of Jutland. It decided nothing. The war was being decided out on the sea lanes of the North Atlantic between the U-Boats and the convoys. Despite these lessons of World War I, generations of naval officers continue to point to Mahan as the ultimate strategist. In the disarmament conferences of the 1920s, they focused on the battleships--how many, how large--and overlooked the submarines.

In preparation for World War II they refought the Battle of Jutland. They ignored the potential of the submarine and looked upon the aircraft carrier as an adjunct for the battleship. And again, of course, World War II proved that Mahan could be wrong. What does this say to us? It says that because of the lack of successors to Mahan, because naval men have failed to rise to the intellectual challenge before them, even today we lack a coherent philosophy of naval strategy, of naval warfare. The fact that we have not measured up here is not unrelated to the other fact that in the last decade the United States Navy has decreased from 1,000 to 460 ships and is only buying enough to sustain a navy of about 330. If we need a larger navy, we need more strategic thinking.

Why do I raise this with you, especially about strategy when

understandably naval strategy is not even a part of the curriculum at the Post Graduate School. I raise it because you are now part of the intellectual elite of the Navy. Not many officers will have the privilege of as much education as you have already. Not many of you will have the opportunity for further formal academic study. And yet, through you we must develop three things: tactical concepts which match the sophisticated weapons and sensors of the Navy today; managerial skills that will allocate our ever scarce resources wisely; and a strategic framework that will give meaning to the managerial and the tactical decisions that we make.

You must bear a large burden of that responsibility in doing this because the Navy has equipped you as well as any of its officers to these tasks. It makes no difference whether here you studied electronics, anti-submarine warfare, intelligence, physics. What is of real value to you and to the United States Navy from your post graduate course, is not the specific knowledge that you have gained and which you will be required to pay back in some subsequent specific tour of duty, but it is the expansion of your reasoning processes. You must recognize that you were brought here to expand your horizons far beyond the subject matter of your particular curriculum and to learn to reason more logically and to research more thoroughly. Please take away with you the challenge of applying the skills and the thinking processes that you have engaged in here to the widest range of problem solving. Prepare to stretch yourself into new areas, to learn to question traditional assumptions and to play a wide ranging role in the sophisticated navy which requires the best that you, its intellectual elite, can produce.

I congratulate you again and I urge you once more to translate what you have learned here into the widest range of benefits to our Navy.

Thank you.



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